What is claimed is:

1. A device for wirelessly transmitting and receiving audio and video data, comprising:

a means for receiving a transmission stream having data formatted into distinct packets

5 that includes at least one PID and an associated PSI, including a PAT, a PMT, a CAT and a

NIT; and

a means for demultiplexing the PSI based upon one or more PID assignments to

unique transport stream packets; and

a means for reassembling the PSI in accordance with a RTP data flow; and

10 a means for encapsulating the RTP data flow into one or more IP packets with

corresponding multicast addresses; and

a means for communicating the reassembled transport stream.

2. The wireless device in claim 1, wherein the means for communicating comprises a WLAN.

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3. The wireless device in claim 1, wherein the means for reassembling the PSI includes a

means for inserting a multicasting IP address for each associated PMT.

4. The wireless device in claim 3, wherein the PMT points to a program addressed by the

20 multicasting IP address.

5. The wireless device in claim 3, wherein the means for inserting a multicasting IP address

for each associated PMT includes a means to calculate a CRC.

25 6. The wireless device in claim 3, wherein the PSI contains a descriptor field in which the

multicasting IP address is stored.

7. The wireless device in claim 3, wherein the PSI is re-formed from the PAT and the PMT.

30 8. The wireless device in claim 1, wherein the PSI contains a flag to indicate that the PSI is

unchanged from a prior transmission.

9. The wireless device in claim 1, wherein the PSI contains a flag to indicate that the PSI is

changed from a prior transmission.

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10. A mobile terminal adapted to wirelessly receive audio and video program data, comprising:

    a means for receiving a transmission stream having data formatted into one or more distinct packets that include at least one multicasting IP address and an associated PSI, including a PAT and a PMT;

    a means for demultiplexing the PSI based upon one or more multicasting IP address assignments to unique transport stream packets in accordance with a RTP data flow;

    a means for extracting a multicast address; and

    a means for receiving a transmission stream associated with the multicast address.

11. The mobile terminal in claim 10, wherein the receiving means comprises means for receiving data according to the IEEE 802.11 standards.

12. A method for mapping MPEG-2 TS into an IP-based RTP/UDP/IP stack comprising the steps of:

    receiving a transmission stream having data formatted into distinct packets that include at least one PID and associated PSI, including a PAT and a PMT;

    demultiplexing the PSI based upon one or more PID assignments to unique transport stream packets;

    reassembling the PSI in accordance with an RTP data flow

    encapsulating the RTP data flow into IP packets with a multicast address

    communicating reassembled transport stream over a WLAN.

13. A method for mapping MPEG-2 TS into an IP-based RTP/UDP/IP stack comprising the steps of:

    receiving a transmission stream having data formatted into distinct packets that include at least one PID and an associated PSI, including a PAT and a PMT; and

    demultiplexing the PSI based upon one or more PID assignments to unique transport packets in accordance with an RTP data flow; and

    extracting a multicast address; and

    assembling a video program associated with the multicast address.

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14. A method of decoding a digitally compressed video stream that has been packetized and transmitted over a packet-based network in a sequence of packets, the method comprising the steps of:

      receiving packets associated with at least one multicasting IP address and associated

5   PSI, including a PAT and a PMT;

      determining which transmitted packets associated with the PSI based upon a PID assignment to unique transport stream packets in accordance with an RTP data flow; and

      a means for extracting a multicast address; and

      a means for receiving a transmission stream associated with the multicast address.

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15. A computer readable medium for mapping MPEG-2 into an IP-based RTP/UDP/IP stack having stored thereon one or more data structure selected from the group comprising of: one distinct packet that includes at least one first field containing an IP multicast address, a second field representing a PAT and an associated PMT; a third field containing data

15   representing an RTP head and a fourth field containing data representing a program.

16. The computer readable medium for mapping in claim 15, wherein the PSI further contains a flag to indicate that the PSI is unchanged from a prior transmission.

20   17. The computer readable medium for mapping in claim 15, wherein the PSI further contains a flag to indicate that the PSI is changed from a prior transmission.

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